

NOISE FEEDBACK CODING METHOD AND SYSTEM FOR  
EFFICIENTLY SEARCHING VECTOR QUANTIZATION  
CODEVECTORS USED FOR CODING A SPEECH SIGNAL

ABSTRACT

A system for performing a computationally efficient method of searching through N Vector Quantization (VQ) codevectors for a preferred one of the N VQ codevectors predicts a speech signal to derive a residual signal, derives a ZERO-INPUT response error vector common to each of the N VQ codevectors, derives N ZERO-STATE response error vectors each based on a corresponding one of the N VQ codevectors, and selects the preferred one of the N VQ codevectors based on the N ZERO-STATE response error vectors and the ZERO-INPUT response error vector.